REMARKS

The Office Action dated June 12, 2003 has been received and its contents carefully noted. In response thereto, applicant has amended some existing claims in an effort to place the application in condition for allowance. Reconsideration of the rejections of the claims is respectfully requested in view of the foregoing amendments and the following remarks.

Drawings

Applicant filed a proposed drawing amendment in the application on August 31, 2001 but there is no indication in the Office Action that the proposed drawing amendment has been considered and approved. Approval of the proposed drawing amendment is respectfully requested.

Claim Rejections - 35 U.S.C. § 112

Claim 23 has been rejected because the term "acceptable" is allegedly indefinite. Claim 23 has been amended by cancelling "at least within a flow range which is deemed acceptable" from the claim. It is believed that this claim is no longer indefinite so the rejection should be withdrawn.

Claim Rejections - 35 U.S.C. §§ 102 and 103

Turning now to the rejection under 35 U.S.C. §§ 102 and 103, claims 21-23, 26-31, 33-39 and 44 have been rejected as being completely shown by Schmit et al. (U.S. Patent No. 6,475,395). To reject claims 24-25, 32 and 41-43, the Examiner modifies the Schmit et al. patent on the grounds of alleged obviousness. Claim 40 has been rejected on the grounds of alleged obviousness by combining the Schmit et al. patent with Hinde (U.S. Patent No. 3,293,861) or GB 2 326 603A. Applicant respectfully disagrees with these rejections for the following cogent reasons.

The present invention is concerned with balancing the flow of air in a piped system having a plurality of outlets, which does not require pipe size to be varied along the length thereof to minimize pressure drop, or the heights of the outlet to be set level. Thus, applicant's system simply comprises a length of pipe having a plurality of outlets provided within the stated constant flow regulators. By this means, a pipe can be laid on the bed of a river or lake without concerns for levels, and produce a constant flow at each outlet irrespective of the distance from one end of the pipe to the other, the number of outlets and their relative position. The system described in the present invention has been used successfully in rivers and lakes

and it is believed that it could be used in waste water treatment plants.

To further emphasize the features of the present invention, sub-paragraph (c) of claim 21 has been amended to add in the word --constant-- between the words "desired" and "quantity". In addition, the words --set amount-- have been replaced with "constant amount". In claim 28, sub-paragraph (c) has been amended to read as follows:

> "a constant flow regulator for each outlet to cause a desired constant flow of gas to be delivered through the outlets when the pressure in the pipe system exceeds a predetermined minimum value".

In addition, claim 28 has been amended to provide antecedent basis for --pipe system--.

On the other hand, the Schmit et al. patent describes a system comprising a plurality of diffusers to be used in a waste water treatment plant and is concerned with cleaning of the diffusers when the flow becomes blocked/restricted in use by supplying a cleaning fluid/gas to the diffusers. In the analysis of the Schmit et al. patent on page 2 of the Office Action, the Examiner alleges that the Schmit et al. patent has means for limiting the gas flow from each outlet to a fixed amount when the

process in the pipe exceeds a predetermined minimum value. That is, he is of the view that the Schmit et al. patent uses a constant flow regulator. However, upon careful consideration of the Schmit et al. patent, this does not appear to be the case. The provision of a flow regulator is mentioned in the Schmit et al. patent, e.g. reference numeral 24 in Fig. 3, but there is no mention anywhere in the specification that this regulator is a constant flow regulator. While Schmit et al. (column 19, line 62) alleges that the regulator can be of any desired type, it cannot be correct that this envisages a constant flow regulator because such a regulator would not allow the invention described in the patent to work. According to Schmit et al. (column 15, lines 29-35), cleaning of the diffusers is done by applying an excess pressure to the diffusers during cleaning and/or by adjusting valves in the system to provide a higher flow of air to the section being cleaned. This results in a consequential higher flow at the diffusers - which is consistent with the requirement to clean the diffusers. With the present invention, a higher flow cannot be achieved because of the provision of the constant flow regulator. Since Schmit is not concerned with balancing but with cleaning of the diffusers, it cannot be provided with a regulator that provides a constant flow of air, because if it was the prior art system could not operate to clean the diffusers in the manner described. The prior art specification requires that certain sections of the system are

isolated to permit a cleaning operation to be carried out. Accordingly, it requires increasing the air flow rate per diffuser to almost maximum to provide good distribution and to get as many pores operating as possible. Thus if air flow is increased, it cannot be correct that a constant flow regulator is employed. Accordingly, it is submitted that the present invention is unique and constitutes an important advance in the art over Schmit et al.

The Examiner recognizes some of the inherent deficiencies of the Schmit et al. patent attempts to correct them by combining bits and pieces of Hinde or GB 2 326 603A into the Schmit et al. patent in order to reject claim 40. However, Hinde and GB 2 326 603A do not make up for the above noted basic deficiencies in the Schmit et al. patent so the combinations proposed by the Examiner still fall far short of the present invention.

In addition, it is only when the Examiner looks to applicant's own disclosure that the Examiner can allege obviousness by choosing these bits and pieces of the prior art references and then combining these bits and pieces together based on alleged obviousness. In some instances, the Examiner does not even use a modifying reference and merely makes modifications to the Schmit et al. patent without any teaching (other than applicant's own teaching) to prompt the

combinations/modifications. Such rejections are merely improper hindsight reconstruction of applicant's own invention using applicant's own disclosure. Thus, it is not seen how the claimed invention can be derived from Schmit et al., Hinde and/or GB 2 326 603A as these references, alone or in combination, simply do not teach or suggest what is set out in the applicant's claims and do not provide the basis for developing the invention to persons having ordinary skill in the art to which the subject matter pertains. Accordingly, the Examiner's reliance on these prior art references is not properly grounded and the rejections based thereon should be withdrawn.

The Court of Appeals for the Federal Circuit has steadfastly criticized the type of hindsight modification being practiced by the Examiner in this application. "The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). See also, e.g., In re Laskowski, 871 F.2d 115, 10 USPQ 2d 1397 (Fed. Cir. 1989); Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985); In re Grabiak, 769 F.2d 729, 731, 226 USPQ 870, 872 (Fed. Cir. 1985); In re Sernaker, 701 F.2d 989, 994, 217 USPQ 1, 5 (Fed. Cir. 1983).

Accordingly, it is submitted that the present invention as claimed is readily distinguishable from the prior art for the reasons indicated. Applicant's invention is not disclosed by any of the prior art and there is no fair basis for alleging that applicant's invention is obvious in regard to such prior art. If the invention was obvious, it would have been adopted before in view of its advantages.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all the claims are allowable and early favorable action is earnestly solicited. The Examiner is invited to call applicant's attorney if any questions remain following review of this response.

Respectfully submitted,

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